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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/570,157	08/02/2006	Horst Hesse	127174	5048
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EXAMINER				
LAZO, THOMAS E				
ART UNIT		PAPER NUMBER		
3745				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/570,157

Applicant(s)

HESSE, HORST

Examiner

Thomas E. Lazo

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-10 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 6/1/06
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “anti-cavitation valve” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

The claim 1 and claim 6 references should be removed from page 1.

On pages 1 and 3, the German language should be translated to English.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitation "the control delta P of the pressure compensator" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5-9, and 10, as far as it is definite, are rejected under 35 U.S.C. 102(b) as being anticipated by Kamada (6,438,953). Kamada discloses a control arrangement for the pressure medium supply of at least two hydraulic consumers 2,3 with a variable displacement pump arrangement which has a variable capacity 1, two adjustable meter-in orifices (within spool valves 4 and 5) each associated with a respective one of the consumers 2,3 and respectively adjustable in dependence on a target value set at a target value entry means 6,7 through the intermediary of a control means 8, a means outputting a control signal to the variable displacement pump 1 in dependence on the set target values, wherein respective sensors 10,11

are provided in the pressure medium flow paths downstream from the meter-in orifices for detecting the individual load pressures, a means (internal to control means 8) for detecting the consumer 2,3 having the highest load pressure based on the signals detected by the sensors 10,11 and for controlling open the meter-in orifice 4,5 associated with the consumer 2,3 having the highest load pressure, and an additional sensor 9 is provided for detecting the pressure upstream from the meter-in orifices, and the pressure drop across the meter-in orifices is determined with the aid of the means from the detected signals, and the actuation of the meter-in orifices is variable in dependence on this pressure drop, so that a desired pressure medium flow rate flows to the consumers 2,3, and the target value entry means is a joystick 6,7.

Regarding claims 6-10, Kamada discloses a method for actuating a control arrangement for the pressure medium supply of at least two hydraulic consumers 2,3 with a variable displacement pump arrangement which has a variable capacity 1, two adjustable meter-in orifices (within spool valves 4 and 5) each associated with a respective one of the consumers 2,3 and respectively adjustable in dependence on a target value set at a target value entry means 6,7 through the intermediary of a control unit 8, and a means outputting a control signal to the variable displacement pump 1 in dependence on the set target values, wherein the individual load pressures of the consumers 2,3 are detected, the meter-in orifice associated with the consumer 4,5 having the highest load pressure is controlled to open completely, a pressure upstream from the meter-in orifices is detected, the pressure drop across the respective meter-in orifices and the individual load pressures is determined, the setting of said meter-in orifices is varied such that a desired pressure medium flow rate distribution across the meter-in orifices is established, in the case of an insufficient supply the cross-sections of flow of the meter-in orifices associated with

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the consumers 2,3 having the lower load pressure are reduced, preferably at the ratio of the maximum pump capacity to the target cumulative flow rate, a pulling load is recognized by evaluating the signals detected by the sensors, and the variable displacement pump is regulated down accordingly, and in the case of a concurrent actuation of several consumers, their load pressures are compared and the meter-in orifice associated with the consumer having the lower load pressure is controlled to open to such a degree that this load pressure difference is compensated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamada, as applied to claim 1 above, in view of Ohta et al. Kamada discloses all of the claimed subject matter except for an anti-cavitation valve for replenishing pressure medium on the low-pressure side of the consumers.

Ohta et al teaches for a pump and consumers 20,20' and that there is an anti-cavitation valve 24 for replenishing pressure medium on the low-pressure side of the consumers 20,20' for the purposes of equalizing pressure on both sides of the consumers. See Ohta et al. col. 8, line 37 – col. 10, line 61.

Since Kamada and Ohta et al. are both control arrangements for pressure medium supply to consumers, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the control arrangement of Kamada, based on the teachings of Ohta et al., to include an anti-cavitation valve for replenishing pressure medium on the low-pressure side of the consumers for the purposes of equalizing pressure on both sides of the consumers.

Allowable Subject Matter

Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art

Prior art made of record but not relied upon is considered pertinent to Applicant's disclosure and consists of eight patents.

Nozawa et al., Weickert et al., Yoshida et al., Yamashita et al., Shirai et al. '063, Akiyama et al. '069, Akiyama et al.'227, and Shirai et al. '063 are cited to show control arrangements for pressure medium supply.

Contact Information

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thomas Lazo whose telephone number is (571) 272-4818. The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Edward Look, can be reached on (571) 272-4820. The fax phone number for this Group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Thomas E. Lazo/
Primary Examiner,
Art Unit 3745
January 31, 2008